

CMOS 8-bit Single Chip Microcomputer

Piggy/evaluation chip

Description

The CXP740000 is a CMOS 8-bit single chip micro-computer of piggyback/evaluator combined type, which is developed for evaluating the function of the CXP740056/740096/740010.

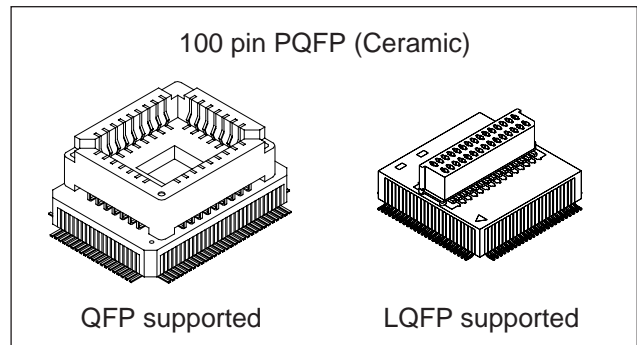
Features

- A wide instruction set (211 instructions) which covers various types of data.
 - 16-bit operation/multiplication and division/ Boolean bit operation instructions
- Minimum instruction cycle
 - 167ns at 24MHz operation (4.5 to 5.5V)
 - 333ns at 12MHz operation (2.7 to 5.5V)
 - 122µs at 32kHz operation (2.7 to 5.5V)
- Applicable EPROM CXP27C702K
(Maximum 120K bytes are available.)
- Incorporated RAM capacity 4096 bytes
- Peripheral functions
 - A/D converter 8 bits, 8 channels, successive approximation method
(Conversion time of 10.3µs/24MHz)
 - Serial interface Start-stop sync type (UART), 1 channel
Incorporated buffer RAM
(Auto transfer for 1 to 32 bytes), 2 channels
8-bit clock sync type (MSB/LSB first selectable), 1 channel
 - Timer 8-bit timer, 2 channels
8-bit timer/counter, 2 channels
19-bit time-base timer, 16-bit capture timer/counter
32kHz timer/counter
 - Remote control unit receive circuit Internal noise elimination circuit
Internal 8-bit, 6-stage FIFO for measured data
12 bits, 12 channels
- Interruption 24 factors, 15 vectors, multi-interruption possible
- Standby mode Sleep/stop
- Package 100-pin ceramic PQFP

Note) Mask option depends on the type of the CXP740000. Refer to the Products List for details.

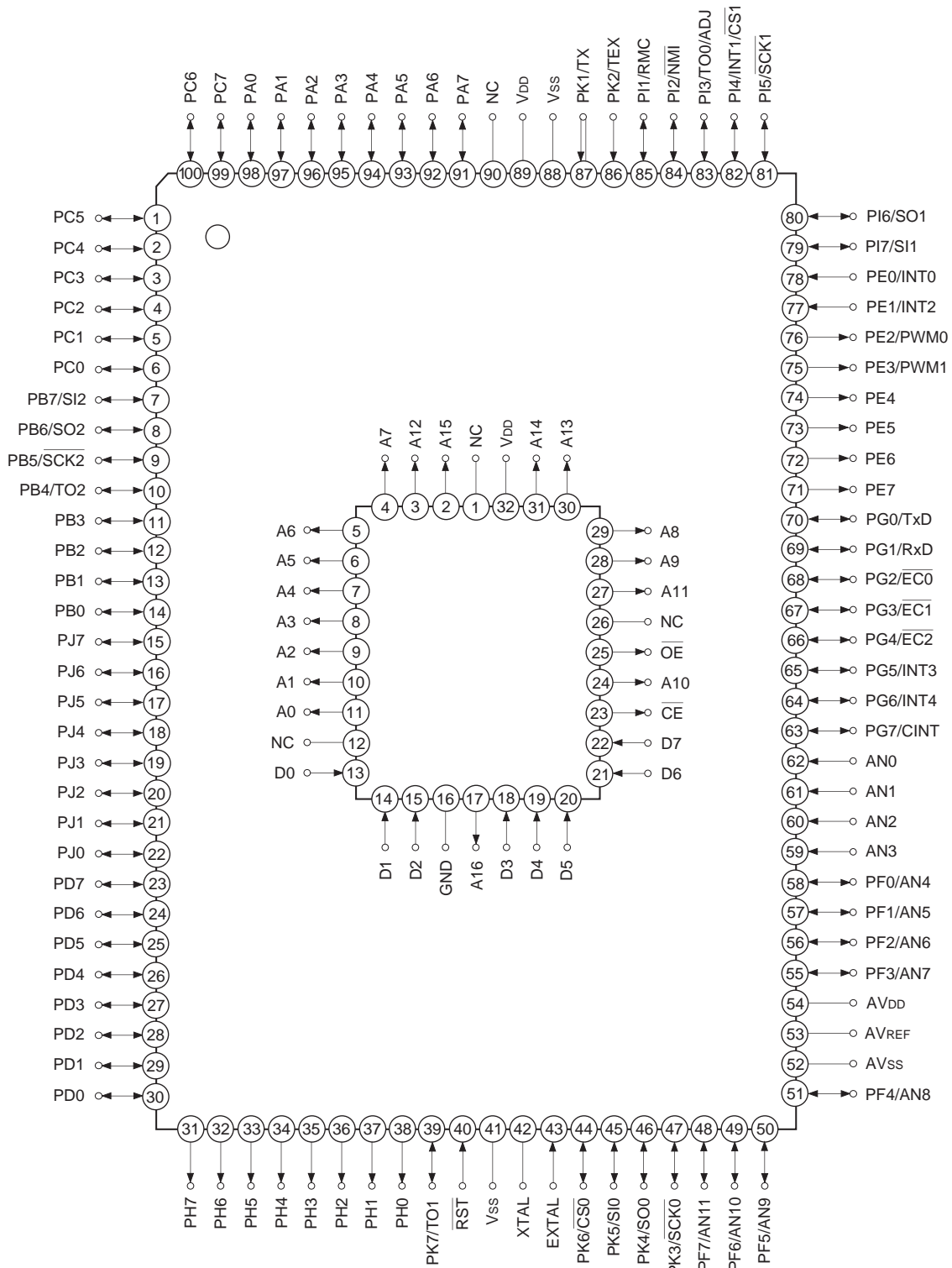
Structure

Silicon gate CMOS IC



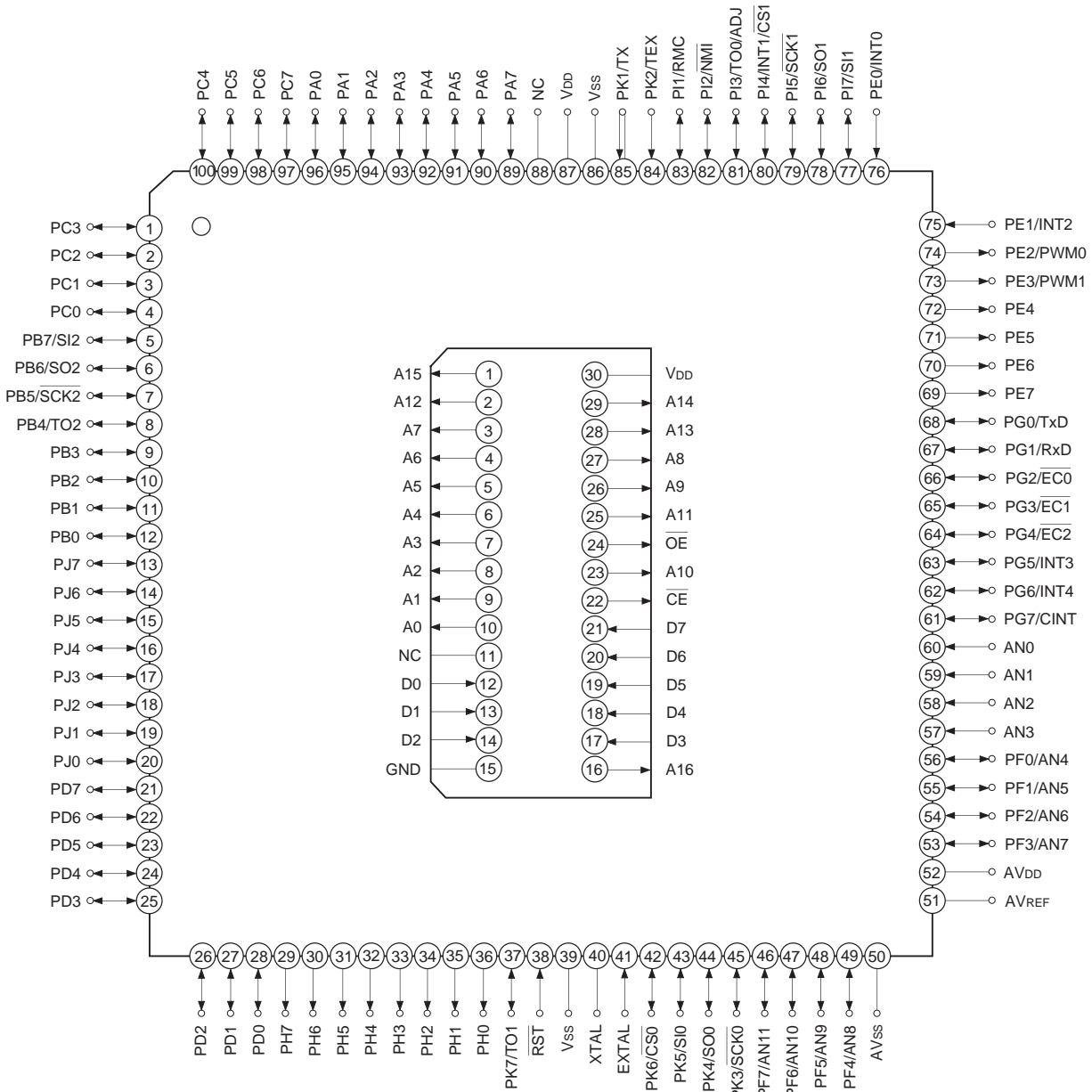
Sony reserves the right to change products and specifications without prior notice. This information does not convey any license by any implication or otherwise under any patents or other right. Application circuits shown, if any, are typical examples illustrating the operation of the devices. Sony cannot assume responsibility for any problems arising out of the use of these circuits.

Pin Assignment in Piggyback Mode (QFP package)



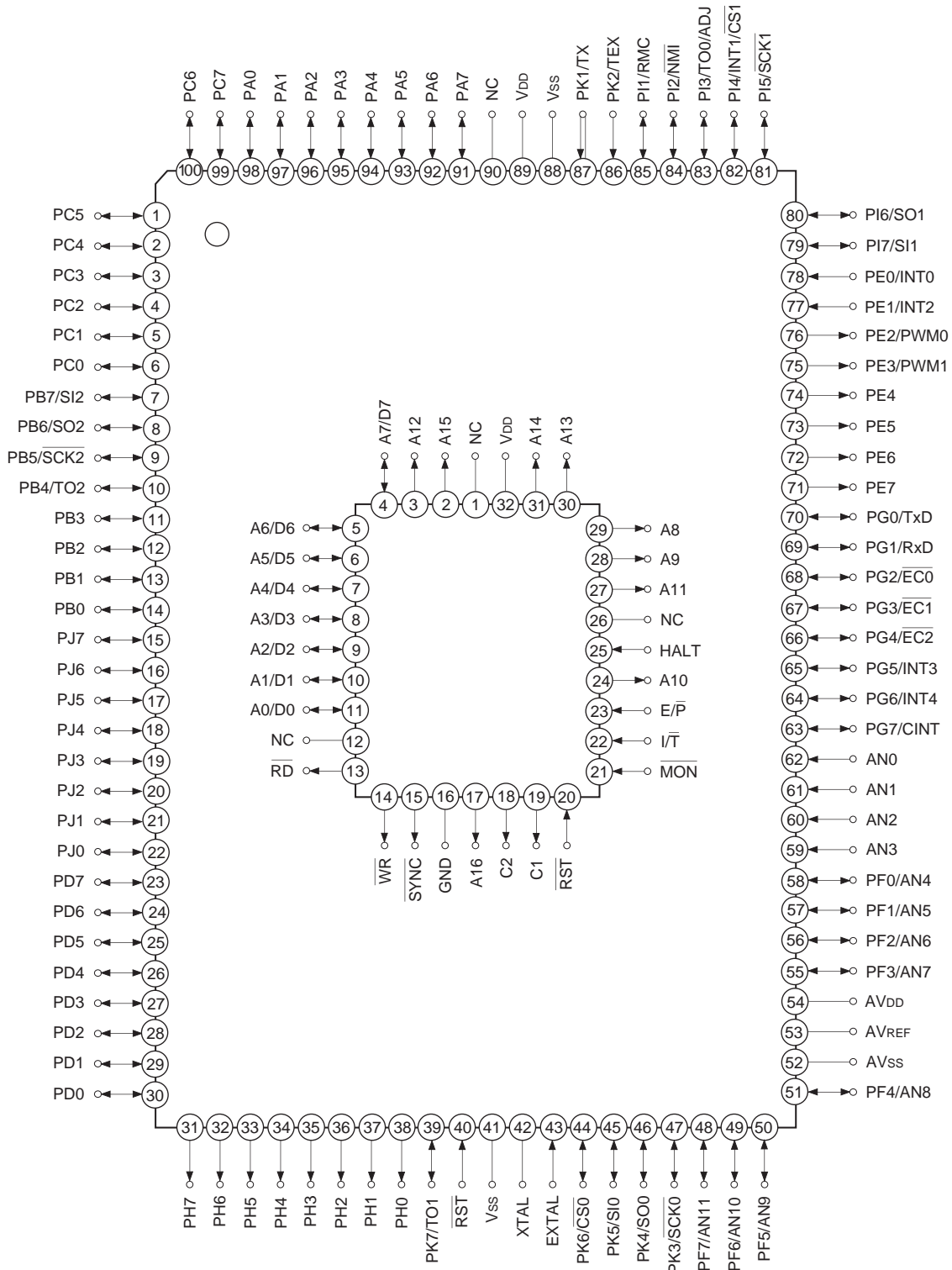
- Note)** 1. NC (Pin 90) is left open.
 2. V_{SS} (Pins 41 and 88) are both connected to GND.

Pin Assignment in Piggyback Mode (LQFP package)



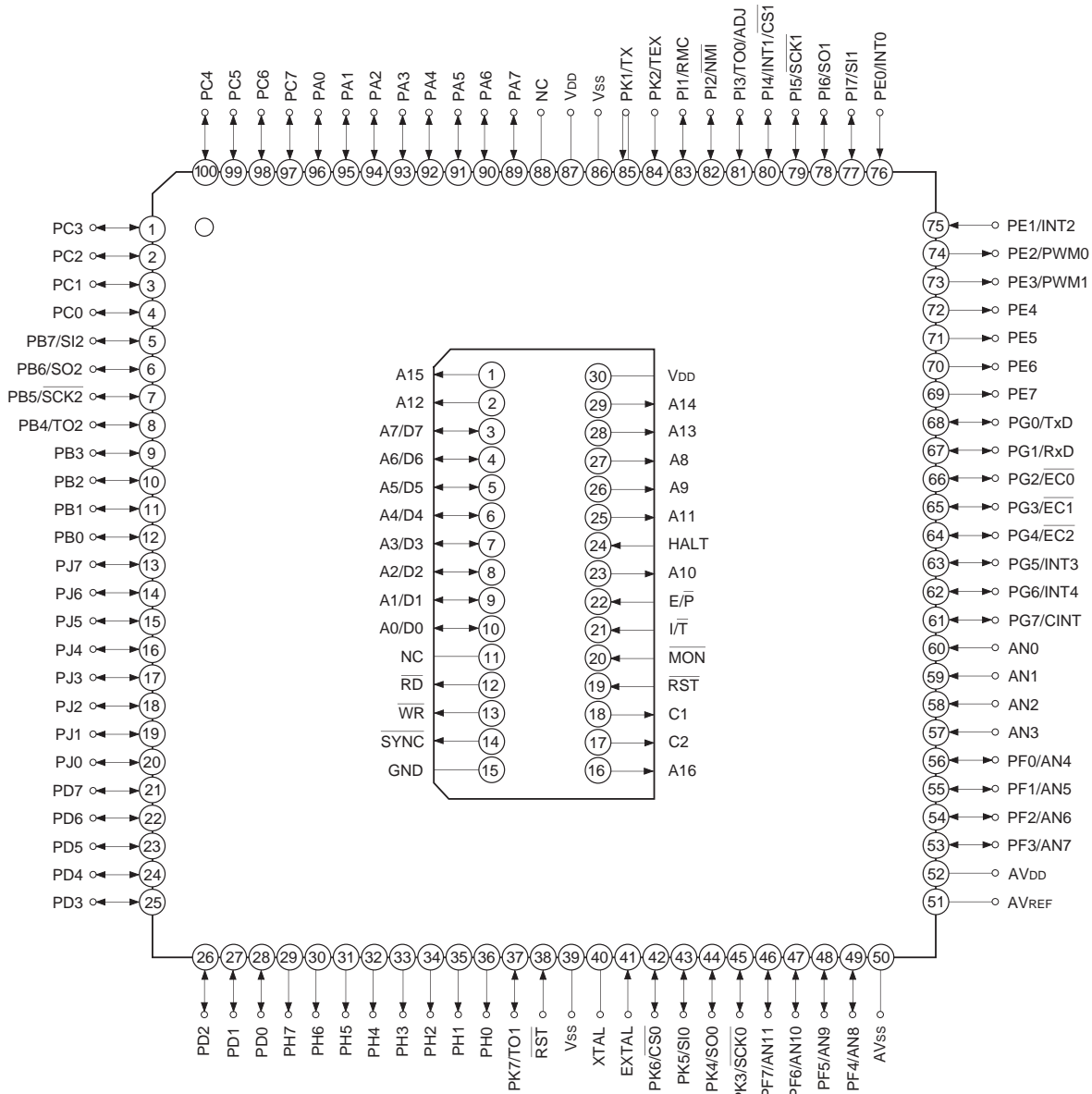
- Note)** 1. NC (Pin 88) is left open.
 2. Vss (Pins 39 and 86) are both connected to GND.

Pin Assignment in Evaluator Mode (QFP package)



- Note)** 1. NC (Pin 90) is left open.
 2. Vss (Pins 41 and 88) are both connected to GND.

Pin Assignment in Evaluator Mode (LQFP package)



- Note** 1. NC (Pin 88) is left open.
 2. Vss (Pins 39 and 86) are both connected to GND.

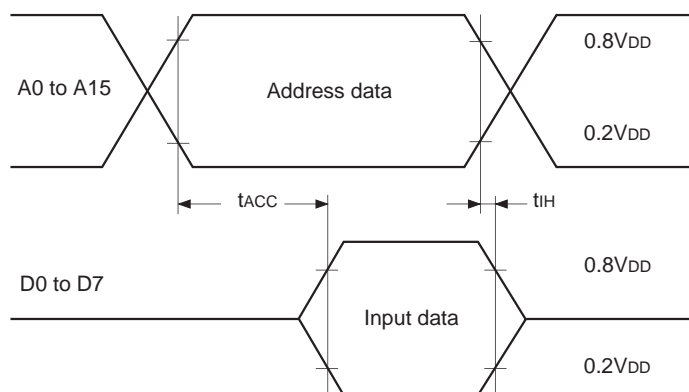
EPROM Read Timing

($T_a = -20$ to $+75^\circ\text{C}$, $V_{DD} = 2.7$ to 5.5V , $V_{SS} = 0\text{V}$ reference)

Item	Symbol	Pin	Min.	Max.	Unit
Address → data input delay time	t_{ACC}	A0 to A15 D0 to D7		100*1	ns
				50*2	
Address → data hold time	t_{IH}	A0 to A15 D0 to D7	0		ns

*1 At 12MHz operation ($V_{DD} = 4.5$ to 5.5V)

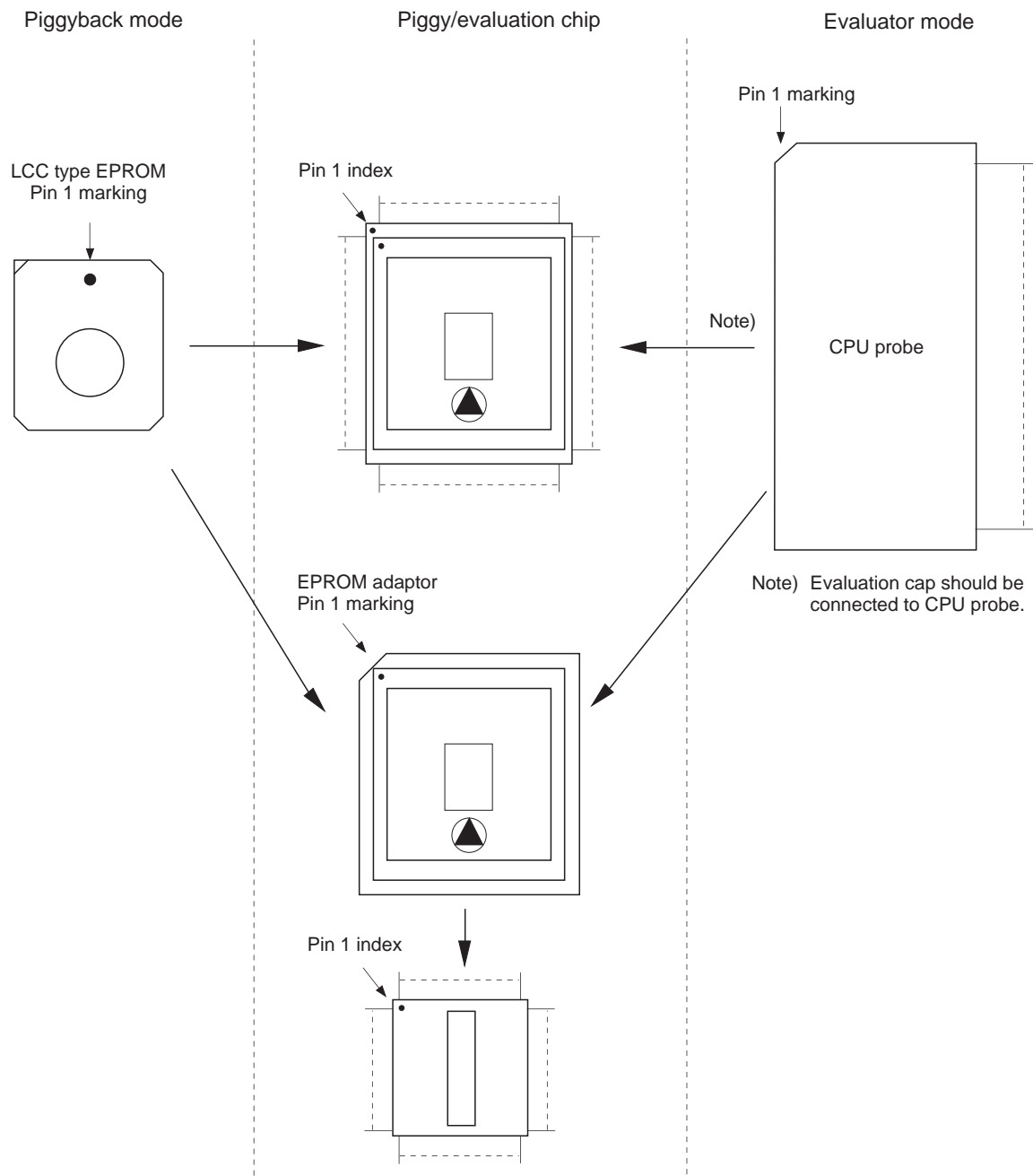
*2 At 12MHz operation ($V_{DD} = 2.7$ to 5.5V), at 24MHz operation ($V_{DD} = 4.5$ to 5.5V)



Products List

Option item	Products			
	Mask ROM			Piggy/evaluation chip
	CXP740056	CXP740096	CXP740010	CXP740000-U01Q CXP740000-U01R
Package	100-pin plastic QFP/LQFP			100-pin ceramic PQFP
ROM capacity	56K bytes	96K bytes	120K bytes	EPROM 120K bytes
Pull-up resistor for reset pin	Existent/Non-existent			Existent

Piggyback mode/evaluator mode can be switched as shown below.





LittleDiode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.